Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2019-eular.3938

THU0637 ACADEMIC ACHIEVEMENT, EMPLOYMENT STATUS, WORK PRODUCTIVITY AND ACTIVITY IMPAIRMENT IN ADULTS WITH JUVENILE IDIOPATHIC ARTHRITIS (JIA): DETERMINANTS AND CONSEQUENCES

Chengappa Kavadiachanda, Karunya Ravi, Vir Negi. *Jawaharlal Institute of Postgraduate Medical Education and Research, Clinical Immunology, Puducherry, India*

Background: Changes occurring in childhood due to JIA leads to activity and work impairment during their transition to adulthood. The factors impairing work and overall activity among adults with JIA need to be explored to formulate policy decisions and rehabilitation measures.

Objectives: • To assess the level of academic achievement, employment, work productivity and activity impairment among adults suffering from JIA
 • To identify factors determining activity impairment among adults with JIA

Methods: Consecutive adults classified as JIA (1) were included. Consenting patients filled a questionnaire comprising of demographic details, occupational/educational status, Indian health associated questionnaire (iHAQ), Work Productivity and Activity Impairment score (WPAI) (2) in the language of their choice. Clinical evaluation for disease activity and damage was done and remission was assessed by Wallace criteria. Remission was defined as ever remission: ≥ 3 months and sustained remission: ≥ 6 months of disease control. Appropriate statistical tests to assess association and correlation of various factors with WPAI were used.

Results: Demography (n=51) is depicted in table 1. Never attaining remission resulted in significantly higher college dropouts (8 vs 17, $p<0.05$), functional impairment (mean iHAQ 1.08 vs 0.5, $p<0.05$) and articular damage (mean JADI A 3 vs 8, $p<0.01$). Disease duration, JADI A and iHAQ correlated well ($r^2 > .400$, $p<0.05$) with measures of WPAI (table 2). Assessment of patient variables like gender, occupation, disease activity and remission status (figure 1) showed that women, especially the homemakers and individuals with moderate to high disease activity had significant activity impairment ($P<0.05$).

Conclusion: Early effective treatment directly impacts employment levels and activity in adults with JIA. Homemakers in middle- and low-income countries have the most impairment in activity as they cannot alter their work. Replacement costs for homemakers would be an added financial burden to the family and is seldom captured by studies. Our study highlights the need to look further into the indirect and intangible costs involving women that will help policy makers formulate effective economic policies for individuals with JIA.

REFERENCES:

- Petty RE, Southwood TR, Manners P, Baum J, Glass DN, Goldenberg J, et al. International League of Associations for Rheumatology classification of juvenile idiopathic arthritis: second revision, Edmonton, 2001. *J Rheumatol*. 2004 Feb;31(2):390–2.
- Reilly MC, Zbrozek AS, Dukes EM. The validity and reproducibility of a work productivity and activity impairment instrument. *Pharmacoeconomics*. 1993 Nov;4(5):353–65.

Table 1. Demographic, educational, occupational, health profile and WPAI measures of adults with JIA

S.No	Parameter (N=51)	Median	IQR
1	Age	22	8
2	Disease duration (years)	9	10
3	Duration of treatment (years)	5	5
4	WPAI Measures (in percentage)	40	50
	Overall Activity Impairment	64.06	61.66
	Overall Work Impairment (N=14)	40	72.05
	Presentism (N=12)	33.03	51.14
	Absenteeism (N=14)		
	Frequency (n)	Percentage (%)	
1	Gender	24/27	47.1/52.9
	Male/Female		
2	Residential type	10/41	19.6/80.4
	Urban/Rural		
3	Educational Status	1	2
	Illiterate	10	19.6
	Less than high school	14	27.5
	High School	8	15.7
	Intermediate/Diploma	18	35.3
	Graduate/Postgraduate or above		

4	Occupation status	18	35.3
	Student	14	27.5
	Employed/Professional/Business	12	13.7
	Housewife	7	11.8
	Unemployed/Quit job due to illness		
5	JIA Subtype	6	11.8
	Systemic Arthritis	4	7.8
	Oligo Arthritis	2	3.9
	Polyarthritis (RF-Negative)	15	29.4
	Polyarthritis (RF-Positive)	23	45.1
	Enthesitis-Related JIA	1	2.0
	Undifferentiated Arthritis		
6	Deformity	27/24	52.9/47.1
	Absent/Present		
7	Remission	16/35	31.4/68.4
	Never/Ever Remission	10/14	19.6/27.5
	Sustained remission before/after 18 yrs		

Figure 1: Correlation between various disease associated factors and WPAI measures.

Variables	Current Age	Disease duration (Years)	Damage Index (JADI A)	Functional disability score (iHAQ)	Patient VAS (%)	Physician VAS (%)	Overall work impairment	Overall Activity Impairment	Absenteeism
Current Age	1								
Disease duration (Years)	.763**	1							
Damage Index (JADI A)	.378**	.301*	1						
Functional disability score (iHAQ)	.572**	.476**	.715**	1					
Patient VAS (%)	.228	.259	.723**	.638**	1				
Physician VAS (%)	.338*	.374**	.679**	.588**	.931**	1			
Overall work impairment	.606*	.398	.691**	.636*	.545*	.541*	1		
Overall Activity Impairment	.481**	.410**	.414**	.519**	.373**	.381**	.844**	1	
Absenteeism	.661*	.600*	.480	.644*	.360	.398	.822**	.546*	1
Presentism	.358	.187	.634*	.368	.354	.295	.911**	.826*	.388

WPAI- Work productivity and activity impairment, JADI A- Juvenile arthritis damage index- articular, VAS- Visual analogue scale, iHAQ- Indian Health associated questionnaire. * P value<0.05, ** P value<0.001.

Figure 2: Association of patient and disease characteristics with activity impairment
 A. gender and activity impairment, B. Type of occupation and activity impairment, C. Activity impairment in patients with sustained remission and others, D. current disease activity by CIADAS/ JSpADA and activity impairment

Disclosure of Interests: None declared
DOI: 10.1136/annrheumdis-2019-eular.5191

THU0638 CONSIDERATIONS FOR IMPROVING QUALITY OF CARE IN RHEUMATOID ARTHRITIS AND ASSOCIATED COMORBIDITIES

Tore K. Kvien¹, Karel Pavelka², Joaquim Polido-Pereira³, Anne Grete Semb¹, Magnus Sköld⁴, Alejandro Balsa⁵, Neil Betteridge⁶, Maya Buch⁷, Patrick Durez⁸, Ennio Favalli⁹, Guillaume Favier¹⁰, Cem Gabay¹¹, Rinie Geenen¹², Ioanna Gouni-Berthold¹³, Frank van den Hoogen¹⁴, Alison Kent¹⁵, Lars Klareskog⁴, Mikkel Østergaard¹⁶, Maxime Dougados¹⁷. ¹Diakonhjemmet Hosp, Oslo, Norway; ²Inst Rheumatology, Prague, Czech Republic; ³Hosp Santa Maria, Lisbon, Portugal; ⁴Karolinska U Hosp, Stockholm, Sweden; ⁵Hosp U La Paz, Madrid, Spain; ⁶Betteridge Assoc, London, United Kingdom; ⁷Chapel Allerton Hosp, Leeds, United Kingdom; ⁸Clin U Saint-Luc, Brussels, Belgium; ⁹Gaetano Pini Inst, Milan, Italy; ¹⁰KPMG, London, United Kingdom; ¹¹Geneva U Hosp, Geneva, Switzerland; ¹²Utrecht U, Utrecht, Netherlands; ¹³U Cologne, Cologne, Germany; ¹⁴Sint Maartenskliniek, Nijmegen, Netherlands; ¹⁵Salisbury Hosp, Salisbury, United Kingdom; ¹⁶Rigshospitalet, Copenhagen, Denmark; ¹⁷Cochin Hosp, Paris, France

Background: The presence of comorbidities in patients with rheumatoid arthritis (RA) contributes to increased morbidity and mortality⁽¹⁾. Patients